

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

VOL. VIII. No. 9.]

MARCH 1, 1913.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

Mr. Austead, Scientific Officer, left on tour on Saturday last for the High Range and will be away for at least a month. He will, if possible, continue his valuable series of papers. Before leaving he furnished us with an article on the Kalisyndikat Magurial Experiment explaining the suggested experiments to be undertaken. Details are very fully entered into.

It will be noticed that the Malabar Coast Planters' Association has changed its name to the West Coast Planters' Association.

A very interesting letter from Mr. Hindley is published which is of great value as being a personal experience in Australia and throws more light on the use of dynamite. His warnings as regards its use are most useful and should be taken to heart.

From the Malaya Planters' Association are published two letters about Labour. That from the Labour Association, Ltd., is suggestive.

Mr. Carmichael's letter is published as being of general interest and will be circulated to all District Associations by the Secretary.

We publish the views of Mr. Lyne, the newly appointed Director of Agriculture in Ceylon, on Dynamite in planting, and read in conjunction with previous articles printed in the *Chronicle*, confirms our own opinion that in the near future, explosives will be largely used throughout India by all agriculturists.

An extract is made from the Annual Report of the Ceylon Planters' Association and we hope next week to publish one or two of the more prominent speeches.

The Hon'ble Mr. Barber has kindly sent us two pamphlets about the European Defence Association containing the Rules and Objects of it, and we learn from him that a Branch will shortly be opened in Madras.

Scientific Officer's Papers.**CXVI.—KALISYNDIKAT MANURIAL EXPERIMENTS.**

At the Annual Meeting of the U. P. A. S. in 1912 the offer of the Kalisyndikat of Berlin to give a subsidy of £100 per annum to each of the districts of Mysore and Coorg for the purpose of carrying out manurial experiments was accepted. (See Book of Proceedings 1912 p. 42).

The following Scheme of Experiments has been drawn up and different parts of it will be carried out on various estates in Mysore and Coorg commencing this year. These experiments are under the immediate control of the Scientific Assistants, while Mr. Birnie, the Syndicate's representative in India, has inspected the plots chosen and afforded valuable aid in the preliminary details. It is proposed to conduct these experiments over a continuous period of five years, and then to issue a report attempting to correlate the results obtained.

In this scheme it is taken for granted that the Coffee planters know that a complete fertiliser is necessary. It is therefore designed to test the comparative value of the different forms of Potash in combination with Phosphoric Acid and Nitrogen, and also the possible value of Nitrolim and Calcium Nitrate, Messrs. Stanes & Co., of Coimbatore, having offered to supply the latter free for the purposes of these experiments.

EXPERIMENT I.		COFFEE.		
Series.	Serial letter.	Manure.		
1. Complete Fertiliser.	A	Poonac	Bone Meal	Muriate of Potash.
	B	2	2	1
2. Nitrogen from Mulch	C	Poonac	Bone Meal	Sulphate of Potash.
	D	2	2	1
3. Saltpetre	E	Basic Slag	Muriate of Potash.	
	F	2	1	
4. Complete Fertiliser.	G	Basic Slag	Sulphate of Potash	Nitrolim.
	H	2	3	4
	I	Bones	Saltpetre.	
		3	1	
		F	Basig Slag	Sulphate of Potash
			3	3
		G	Basic Slag	Sulphate of Potash
			5	4
		H	Bones	Muriate of Potash
			15	Calcium Nitrate.
			8	9 (+8 soil)
		I	Bones	Sulphate of Potash
			15	Calcium Nitrate.
			8	9 (+8 soil)

EXPERIMENT IV.		CEARA RUBBER.	
Serial letter.		Manure.	
J	Sulphate of Potash	... (1 lb. per tree.
K	Muriate of Potash	... (1 lb. per tree.
L	Saltpetre *	... (1 lb. per tree.
M	Calcium Nitrate	... (1 lb. per tree.
N	Nitrolim	... (1 lb. per tree.

EXPERIMENT I.

In Series 1, a direct comparison between Sulphate and Muriate of Potash in a general fertiliser such as is usually used for Coffee is obtained, the proportions of the different ingredients in the mixture being based upon the ash analysis of the coffee plant and seed and assumed to be right for the time being.

In Series 2, it is assumed that where a heavy mulch of leaves exists there is Nitrogen enough (See *P.C.*, Vol. VII, pp. 238, 253 which contain an account of work done to investigate this point). This experiment is designed to test the accuracy of this theory in comparison with Series 1, and if it be correct, to discover whether the potash is most suitably supplied with Basic Slag in the form of Muriate or Sulphate. Series 3, contrasts saltpetre with Muriate and Sulphate of Potash in Series 1.

Series 4, is designed to test the value of Calcium Nitrate and Nitrolim respectively and to discover what form of potash is best used with these fertilisers.

With regard to the time of application I would suggest that in all cases in this experiment Poonac, Bone Meal and Basic Slag should be applied in March, and Potash, Nitrolim and Calcium Nitrate in the break of the South West Monsoon, September to November, though I should like time of application experimented with.

In Series 1, it would also be advisable to run a duplicate, Plots A, & B, receiving slaked lime at the rate of 2 tons per acre in March and the whole of the manure in the following autumn.

EXPERIMENT II.

This deals with the rate of application. In each of the series different quantities may be applied. The standard amount for application in Experiment 1, is about 4 cwt.s. per acre. In this Experiment, 4 cwt.s., 3 cwt.s., 2 cwt.s., and 1 cwt. can be used, so that each serial experiment (A, B, C, &c., &c.) may be divided into 4.

EXPERIMENT III.

This deals with time of application and in each series the manures may be divided and applied at different times of the year in all possible combinations. Take for example Series 1 A. The whole mixture may be applied in March or in September. Or Poonac and Bones in March and the Potash in September and so on.

Probably Experiments II and III will not be taken up and they will certainly not be carried out in all their possible combinations. Experiment I will however be done or sections of it will be done more rapidly by planters.

It is proposed to allow planters to choose which series they like. Some may do all, some one or more.

In all cases the following data should be recorded if possible:—

Essential data—

1. Number and letter of Plot.
2. Area of the Plot.
3. Number of trees.
4. Manure applied.
5. Date when manure is applied.

-
6. Cost of manuring.
 7. Weight of crop picked before pulping.
 8. Weight of dry parchment.
 9. Rainfall of estate.
 10. Nature of Soil and shade trees.
 11. Nature of Mulch.
 12. Remarks as to freedom from leaf disease, &c.

Further desirable data—

13. Weight of each grade of coffee, A. B. C. P. & T.
14. Quality of each grade.
15. Price obtained for each grade.

Analysis—if possible.

16. Soil analysis of each plot as a whole.
17. Analyses of all manures applied.

Another important factor to be taken into consideration is the relation of any manure, or mixture, applied to the *available estate labour*. Thus a Manorial system which required labour at times when it is always short, though it gave more crop, might be less economical than one which required labour at times when it is plentiful though it gave a smaller crop than the other.

EXPERIMENT IV.

This is proposed for Ceará Rubber and will be carried out probably only in Coorg there being little Rubber in Mysore. The idea is to test the value of a number of fertilizers in increasing the actual latex yield at the time of tapping in continuation of work reported in the *Planters' Chronicle*, Vol. VI, p. 203.

Purely manorial experiments can also be conducted with Rubber much on the lines of Experiment I if necessary.

RUDOLPH D. ANSTEAD,
Planting Expert.

THE LABOUR CODE, 1912.

IMMIGRATION COMMITTEE'S RATE APPROVED.

The following notification is, by direction of the Chief Secretary to the F. M. S. Government, published for general information as a *Government Gazette* extraordinary:—

It is hereby notified that in exercise of the powers conferred by section 156 of "The Labour Code, 1912," the Indian Immigration Committee has, with the consent of the High Commissioner, prescribed the following rates to be paid for the first quarter of the year 1913:—

(1.) A rate of \$2 to be paid by every employer in respect of every Indian labourer employed or working on the place of employment during the quarters.

(2.) A further rate of \$1 to be paid by every employer who shall have employed during the quarter Indian labourers in excess of the number of adult Indian labourers imported by him with free passages provided by the Indian Immigration Committee during the twenty-four months proceeding the commencement of the quarter.—*Penang Gazette Weekly Mail Edition,*

DISTRICT PLANTERS' ASSOCIATIONS.**West Coast Planters' Association.****Late Malabar Coast Planters' Association.**

*Proceedings of an Annual General Meeting held at Malabar Club,
Calicut, on the 25th January, 1913.*

PRESENT.--Messrs. J. C. Christie, C. W. Clode, V. H. Travers-Drapes, Campbell Hunt, A. H. Mead, H. Waddington and H. C. Plowden, Honorary Secretary and Chairman. **Visitors:**--Messrs. B. M. Behr, C. E. M. Browne, J. G. Ferguson, E. G. Pitcairn and W. O. Wright.

The Proceedings of the last Meeting were confirmed.

58. The Honorary Secretary read the Annual Report and presented the Accounts made up to 31st December 1912.

ANNUAL REPORT.

I have pleasure in submitting the Annual Report and Accounts for the year ending 31st December 1912 in accordance with the rule passed at the last Annual Meeting of the Association held at Trichur on the 6th April last.

Our late Chairman, Mr. Lord, having left the District, it falls upon me to submit both the Chairman's and Honorary Secretary's Reports, so I will combine the two in as short a space as possible and not take up more of your time than I can help.

At the last Annual Meeting it was resolved that there should be only two meetings of the Association yearly. One in Calicut and one in Trichur, and it was hoped these meetings would be well attended, but unfortunately we have been unable to obtain a well attended Meeting as yet. However, I am glad to see that there are more members here to-day as there is the important matter of reconstructing the Association to be discussed later on.

We were not called upon to increase our subscription to the United Planters' Association of Southern India during the current session.

The year under review has been a prosperous one for our main product, rubber prices having been satisfactory during the whole of the year, and if the prices realised at forward sales can be taken as a criterion 1913 should be equally prosperous.

Our thanks are due to the Public Works Department of Travancore and Malabar for the prompt way they have undertaken work brought to their notice by this Association.

The refund from the Rubber Exhibition Fund which amounted to Rs.332-8-2 has been placed to the General Fund of the Association

I much regret that the Scientific Officer has not been able to publish any bulletins, although we started the ball rolling with a subscription of Rs.30.

There are 10 Honorary Members, 10 Estates and 29 Private Members belonging to the Association. The cultivated acreage represented is still 11,481 acres and this year there should be an increase, but I am unable to give details as the subscriptions for 1913 have not yet been called for, as it was considered better to leave this over till after this meeting when the Association will have been reconstructed.

Referring to Accounts, a copy of this year's expenditure is on the table. You will see that there is a balance at credit of Rs.464-11-10 with the Bank of Madras. There are practically no outstanding liabilities and only Rs.35 due from Members.

I now beg to tender my resignation.

(Signed) H. C. PLOWDEN,
Honorary Secretary.

The Report was adopted and ordered to be printed with the Proceedings. The Accounts were passed subject to audit, Mr. Waddington being asked to audit same.

59. *Lady Amphilill's Nursing Institute*.—Resolved: "That the Association join this at once and the Honorary Secretary was authorised to pay the subscription of Rs.100."

60. *Reconstruction of Association*.—Resolved: "That the Rules as drafted and approved by this Meeting be adopted, printed and circulated to all members."

61. *Finance*.—Resolved: "That Subscription and acreage assessment for 1913 be settled by the Committee."

62. *Scientific Officer Fund*.—Resolved: "That the Association does not increase its subscription to this fund above the amount at present subscribed."

63. *Office Bearers*.—The following members were appointed:—

Chairman	... Mr. Campbell Hunt.
Honorary Secretary	... Mr. H. Waddington.
Committee	... Messrs. A. H. Mead, T. Martin, and H. C. Plowden.

A cordial vote of thanks was passed to Mr. Plowden, retiring Honorary Secretary for his services during the past year.

A vote of thanks to the Chair and to the Honorary Secretary of the Malabar Club for loan of the Club Room for purpose of the Meeting terminated the proceedings.

(Signed) CAMPBELL HUNT,
(. .) H. WADDINGTON,
Honorary Secretary.

Note by Honorary Secretary.—Change of title of the Association comes into force under first of new rules, which will be circulated to all members shortly, with statement of accounts to 31st December.

Writing of Tea Fluff as Manure for Roses *The Indian Planters' Gazette* says:—

"We may state that planters have also at hand another manure which likewise has a marvellous effect on rose plants, namely, the soot from their factory chimneys. Rose plants simply love it and thrive in an amazing manner under its influence. A mixture of tea fluff and soot would probably produce flowers which for size, colour, etc., would win prizes at any flower show. Hitherto tea fluff and soot have been thrown away as of no value, but now planters will know that both products are of the greatest value as manure for their flower gardens, especially for their rose plants."

CORRESPONDENCE.

The EDITOR,
Planters' Chronicle.

Dear Sir.—It is rather hard for me to estimate the cost; but I should say 3*l*—4*d*. a shot would about cover it, but this would depend upon the nature of the sub-soil treated and whether quite dry or wet, but the actual charge, distance and depth of shots per acre could only be found out exactly by practical experiment, but to get the fullest benefit of shots I think one ought to try and get each set to explode simultaneously; this can be easily done by timing, fuse is wonderfully accurate and will burn so many seconds to the foot with great regularity; by getting say 6 shots off together it seems to me a more general breaking up underneath will be made than by shots exploding one by one. Although the primary cost may seem a good deal, I feel certain it would be money well spent. One can't compare it to hand labour, for I know no white men who would attempt any area of any size; and coolies would die of old age from what I've seen of them before getting it finished.

I have never used it to replace hand labour, but to do work and prepare country which up till then hand or rather horse power had been *unable* to do (I am speaking of breaking up land, not trees or stone), thereby bringing country into profit which would otherwise be valueless; as far as I know the results are permanent; but whether the monsoon would solidify the subsoil again I don't know but I think the air and roots having once got in it would keep open.

But the only thing is for planters who think well of it to try it, I should say a fiver spent would give them a very fair idea. I would suggest you be sure and mention the saltpetre method of getting rid of stumps, it's very good.

SUGGESTED EXPERIMENTS
with Geltignite Dynamite or Rackarock.

6 shots 1 plug	5th square	2 ft. deep.
" "	4th "	2 <i>½</i> "
6 shots whole plugs 10th	"	2 <i>¾</i> "
" "	12th "	3 "
" "	14th "	2 "
*6 shots 2 plugs	18th "	3 "
" "	20th "	3 <i>½</i> "
" "	24th "	2 <i>¾</i> "

Try in various places, and vary depths according to distance of sub-soil from surface soil.

Don't *Drop* dynamite etc. Be *particularly* careful of caps, they are the most dangerous, get well fitting fuse, shake all sawdust out of cap and push well home; don't *screw round* in cap, if fuse fits tight there is no need to crimp it, make hole in plug with wooden stick and push cap and fuse right in. Best way to light fuse split slightly at lighting end and put match head into it, then touch off with cigar.

COUNT your shots before going back, never dig out a misfire but put another close by and blow it out.

Yours faithfully,
(Signed) COLIN HINDLEY.

* The heavier charges might be tried on unplanted land.

From,

C. D. J. Carmichael, Esq.,

Dy. Inspector-General of Police,

Southern Range, Coimbatore.

To,

The Secretary to the

United Planters' Association of Southern India,

Bangalore.

Sir,—Adverting to your letter dated 10th September 1912 on the subject of warrants issued under the Planters' Labour Act I have the honour to suggest, that if it can be so arranged, detailed descriptive marks of the maid-servants and coolies with whom contracts are entered into should be obtained and recorded in any admission or enlistment Register the Planters may maintain, and a copy of the entries be sent with the warrant for the arrest of the person concerned. Much of the difficulty now experienced in the execution of these warrants may by this means be obviated.

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) C. D. J. CARMICHAEL,

Dy. Inspector-General of Police, S. R.

Labour Code.

The Secretary, Malaya Planters' Association reads the following letter :

Sungei Mahang,

Martin P. O.,

19th December, 1912.

Dear Sir.—"I forward the enclosed for your perusal.

"It seems to me that the Labour Association if they can fulfil their promises can only do so by an organized crimping at the coast, and it would appear advisable that the matter should be gone into.

"Another matter which I should be glad of your opinion on is the possibility or otherwise of proceeding against crimpers and harbourers over the Malacca boundary : I have suffered severely on Kubong Estate lately from bolters and now have heard indirectly that a Malacca crimp is sending them down there, receiving a bonus of 10/- per head.

"He, of course, is merely a tool : the people I want to get at are the receivers, and I should be glad if you would inform me whether in the event of my obtaining evidence I could proceed against the estate or estates for crimping and harbouring.

Yours faithfully,

(Signed) ORIENTAL RUBBER CO., LTD.

G. W. TEMPLER,

General Manager.

The SECRETARY,

Planters' Association of Malaya,

Kuala Lumpur.

4c De Souza Street,

Singapore,

12th December, 1913.

TAMIL COOLIES.

Dear Sir.—" We beg to advise that we have now made satisfactory arrangements for the prompt supply of Indian labourers through estates own kanganas. We can supply 3,000 per annum.

" All that is necessary is to send two or three kanganas to our agent in India and the coolies will be promptly supplied; payment against shipment.

" The price is \$25 each, delivered at Port Swettenham,

" We guarantee first quality labourers and should you wish you may appoint your own representative at port of shipment to select the labourers before shipment. All coolies will be passed by the Government doctor before being engaged.

" If this interests you kindly write us for further particulars.

We are, etc.,

(Signed) THE LABOUR ASSOCIATION, LTD.

The MANAGER,

The Oriental Rubber Company,

Negri Sembilan.

and is instructed to refer this correspondence to the Indian Immigration Committee.—*Minutes of Meeting of the Planters' Association of Malaya.*

(CEYLON PLANTERS' ASSOCIATION, ANNUAL MEETING
AT KANDY.)

THE LABOUR QUESTION.

Turning to the labour question Mr. Bliss said that practically nothing had come before the Association during the past year for the reason that at the beginning of 1912 their Association, having passed certain resolutions on the matter these were referred to the Proprietors' Labour Federation. The body had certainly accepted and more or less agreed to adopt the resolutions and recommendations passed by their Association, but up to now no meeting of that body had been held. He believed, however, that it was to be held quite shortly.—*Weekly Times of Ceylon.*

The report of the Registrar-General on the Vital Statistics of Ceylon, for the third quarter of 1912, is given as a Supplement to the Ceylon Government Gazette of the 10th instant. The estimated population of the Island on the last day of the quarter was 4,183,302, showing an increase of 22,641 on the preceding quarter, due to an excess of 20,432 arrivals over departures of Indian coolies and of 2,269 births over deaths. The number of Indian coolies who arrived in the Island during the quarter was 38,936 and of departures, 18,504 as against 30,942 arrivals and 16,416 departures, the average for corresponding quarters of the last 14 years.—*The Indian Planters' Gazette and Sporting News.*

EXPLOSIVES.

Views of Mr. R. M. Lyne, Director of Agriculture, on Dynamite in Planting.

The use of dynamite in agriculture is now coming to be recognised as an important factor, and that the time is not far distant when it will be largely adopted on tea, rubber and other plantations is the opinion of Mr. R. N. Lyne, Director of Agriculture, who was interviewed on the question by the Kandy representative of the *Times of Ceylon*.

Experiments go to show, according to Mr. Lyne, that dynamite can be used with advantage to break up hard and impermeable soil; desiccate what is known as hard pan found below the ordinary open sub-soil in our plantations: and thus form channels for the free entrance of air and rain water; effectively remove tree stumps and roots, which are such an obstruction, in clearings; make holes for planting trees in the way in which they should be made; break up lands to equalise water supply; open trenches; aerate sub-soils and counteract any tendency of the ground to become infected with pests or charged with poisonous toxins, and perform many other labour saving operations.

AS A SUB-SOILING AGENCY.

The value of dynamite as a sub-soiling agency Mr. Lyne said was very great, and the ideas of using it in connection with planting were many and varied. Several demonstrations were given at Peradeniya, and a plantation had been laid out after using dynamite in the preliminary operations.

Constant cultivation, as our planting readers are aware, results in a hard pan being formed a few feet below the surface which is absolutely impervious to water. In some tea districts the existence of hard pan has been regarded as a misfortune that had, of necessity, to be accepted. All this, however, will now be a thing of the past: and the planter can so treat the most impermeable soil as to derive the greatest possible benefit from it. The idea of sub-soiling with dynamite, Mr. Lyne pointed out, was not to disturb the top soil but to break up the hard pan effectively. The cartridges were inserted at the required depth and fired; and while there was not much movement on the top, the soil below was broken up for some distance all round. The harder the ground the more effective the explosion owing to the resistance offered, while in loose soil it was practically useless.

"The effect of dynamite in soil, it must be remembered," he added, "is in inverse ratio to the amount of earth thrown up." The hard ground through which the rootlets of trees penetrate with the greatest difficulty and which supplied no nourishment, Mr. Lyne went on to say, was broken up all round, cracks and fissures radiating from the centre of the explosion. Moisture would now be conserved, and the plant rootlets would have no difficulty in receiving new nourishment which would develop the growing plant in a remarkable manner. Storm water instead of running off the land would sink into the cracks and fissures in the soil and be conserved and prove invaluable to the plants in the hot season.

The roots of plants drew from the surrounding soil the required nourishment, and water or moisture was the carrier of such plant food. There is always a water table, Mr. Lyne proceeded to demonstrate, and plants absorb the water which soaked upwards as the ink spreads in a piece of blotting paper dipped in the ink pot. Therefore to make such water and plant food available to the plant there should be a loose, porous soil which can be produced by dynamite explosion. The breaking up of hard pan and sub-soil also improved the drainage. After the monsoon rains, especially, some lands became water logged and "sour" which was so detrimental to plant growth. The breaking up of the soil would remedy such a state of things.

REMOVING TREE STUMPS AND ROOTS.

In the removal of tree stumps and roots from our plantations, especially new clearings, dynamite is going to play an important part, said Mr. Lyne. The thousands of tree stumps with huge roots left in the ground in some of our young plantations were most objectionable. The cost of digging out all stumps and roots on large estates must be great and the labour involved considerable, and for this reason in many cases, they were allowed to remain in the ground. Stumps and roots, while being a nuisance were, as regards those of some species, a source of danger, especially on rubber estates, Mr. Lyne remarked, as being productive of certain fungoid diseases.

THE FOMES PEST.

In this connection it might be pointed out that the dangerous root disease of Pará Rubber trees, assigned to *Fomes Semitostus*, has been traced to stumps in young plantations. Mr. T. Petech, Mycologist, says that practically in all cases this fungus develops upon a neighbouring jungle stump, at least in young plantations. After the stump has become permeated with the mycelium, we are told, the latter spreads out through the soil in search of food; and if this mycelium meets the root of a Hevea it immediately grows round and along it; and by the time the Hevea begins to die, the jungle stump from which the disease has spread is covered with the fructifications of the fungus. In one instance, where no stump was evident anywhere near, the fructifications, Mr. Petech says, were discovered on a log which had been buried beneath about six inches of earth; and in two instances the original jungle stump had been completely devoured by white ants, but the fructifications had developed within the galleries of the termite hill. So it will be seen that there is some considerable risk in having stumps and roots in the ground in rubber plantations. Fomes, however, is said to attack stumps of certain species only; but with the cheap and effective method of removing stumps and roots, which die very slowly, and which are an objectionable feature, there is no reason why they should be allowed to remain. For removing stumps and roots no method, it is said, is quicker or more economical than dynamite. The blast not only splits the stump into firewood and removes it but brings the root out cleanly from the ground.

IN TREE PLANTING.

Mr. Lyne explained that dynamite was also of the greatest importance in tree planting. It not only saved considerable labour and time, but it formed the hole in the proper way it should be formed—loosening the soil all around, breaking up any hard layers and thus giving the roots room to expand, while the plant derived the greatest possible benefit. Contrast this with the method now followed where the cooly will spend hours digging in pot holes, most unsatisfactory concerns in which the roots had no room to expand, and in which the water sometimes lay and rotted the roots, remarked Mr. Lyne. Besides this a large number of tree holes can be blasted simultaneously, while scores of coolies spend days to accomplish what can be more effectively done in so many minutes.

DESTROYING PESTS AND TOXINS.

Another beneficial result of such dynamite explosions, added Mr. Lyne will be in the destruction of insect pests and toxins in the soil. He thought that the gases generated would have the effect of killing the toxins, the poisons in the soil, which were destructive to the bacteria of nitrification; while it was possible that the explosion would also kill vermin and insect pests which harboured in the soil.

Besides all this, Mr. Lyne concluded, dynamite can most effectively be used in draining land, in opening trenches or ditches, and in removing boulders from plantations.—*The Weekly Times of Ceylon.*

CEYLON PLANTERS' ASSOCIATION.

ANNUAL REPORT.

We have received through the courtesy of the Secretary of the Planters' Association of Ceylon the Fifty-ninth Annual Report for the year ending December 31st, 1912. It is too long to reproduce, but it is a satisfactory record of steady progress. With the ever-increasing need of Scientific advice in all its phases, the appointment of Mr. Lyne as Director of the Agricultural Department is one of great importance to Ceylon Planters. Transport is second only to the labour problem in Ceylon, and we shall reproduce next week some speeches made at the Ceylon Planters' Association on these two subjects.

The Report is outspoken and direct as to the duty of the Government to so open communications "that private enterprise may be encouraged to enter the field with motor transport and be hampered no longer as has been the case hitherto." The anecdote told by Mr. Sinclair in his speech on the Transport question, would be ludicrously amusing, were it not so deplorably illustrative of the method or want of method on the part of the Public Works Department to keep pace with the times. Liquid Fuel is largely displacing firewood, which is being rapidly exhausted, and transport rates have risen all round 10 to 15%. This is being inquired into as it appears to have become a monopoly, and threatens the break down of transport. The estimate of the Tea crop for 1913 is 189,000,000 lbs. There was a decrease in the export of Green Tea during 1912 of 933,278 lbs. as compared with 1911 due to the abnormal position in Russia. Rubber takes up a large portion of the report, as was to be expected. Tapping systems are almost entirely confined to paring the bark. Thinning out is discussed, and this debateable question is not settled, some advocating 100 trees to the acre, while others advocate up to 200 with high cultivation. The total shipments of Rubber for the year were 13,001,075 lbs. against an estimate of 12,320,000 lbs. There has been an increase of 8,500 cwt. over last season of Cocoa. Cocoanut suffered on account of drought, but it is satisfactory to learn that small native estate owners are cultivating their properties in an up-to-date method. Though cardamoms fell short prices have been satisfactory. The Government Entomologist and Government Mycologist contribute short reports on Insect Pests and Fungoid Diseases which add to the value of the Secretary's Report. The Coast Agency has been reorganised on a permanently sound basis. Railways and Telegraphs are duly noticed. We shall have more to say when the full report of the Meeting of the Planters' Association is received.

The Labour Question did not take up so much time or space as might have been anticipated seeing how important this matter is to the welfare of Ceylon, but the Ceylon Planters' Association evidently before taking action in this matter are awaiting the decision of the Proprietors' Labour Federation, who were shortly holding a meeting, a report of which we hope to receive before our next issue, and on which we shall comment. The recruiting of Labour from the West Coast so affects the planting community of Southern India, that any decision arrived at by the Proprietors' Labour Federation must be of interest to them. The tendency in Ceylon is to reduce the advances to within reasonable limits and will receive the support of all planters in all countries, and in the interests of all it is to be hoped that all Estates will join the Federation.